

Remarks

The above-captioned patent application has been carefully reviewed in light of the Office Action to which the Amendment is responsive.

Claim 14 has been amended to recite a "ring-shaped surge protective element" to correct the lack of positive antecedent basis indicated by the Examiner. Also, the claim language "conductive pin" has been replaced with the language "input pin". Also, claims 15-16 are newly added.

The Examiner has rejected claim 1 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims 1-4 of U.S. Patent No. 6,683,773.

In response, the Applicant asserts that the U.S. Patent No. 6,683,773 and the subject application had common ownership at the time the subject application was filed. The Applicant is able to timely file a terminal disclaimer upon removal of all other rejections to claim 1 during the prosecution of the subject patent application.

The Examiner has rejected claims 1-4, 12 and 13 under 35 U.S.C. §103(a) as being unpatentable over Chaudhry (U.S. 5,724,220) in view of Volkenau et al. (U.S. 3,883,774).

According to the MPEP §2143, three basic criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Also, the MPEP §2143 states; the Examiner's proposed combination cannot render the cited prior art unsatisfactory for its intended purpose. This portion of the MPEP also

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states that a proposed modification cannot change the principle of operation of a reference. The Examiner's proposed combination of references does not teach or suggest all claim limitations and further, changes the principles of operation for the base reference Chaudhry.

With respect to Chaudhry, the Examiner further states that Chaudhry discloses "an electrically conductive surge protective element 414,416 (Figure 24-25) and 414,430 (Figure 26-29)" that is a "semicircular ring" that is "in physical and electrical contact with a shoulder formed within said body of said housing (Column 12, lines 39-67)" and states that "Chaudhry fails to disclose a protective element, which is a ring".

The Applicant asserts that the differences between Chaudhry and the Applicant's invention are not limited to a protective element that is shaped as a ring.

With respect to Figure 25, Chaudhry states that "the gas discharge tube 400 has a fail short mechanism comprising conductor 414 and insulator 416 which covers at least a portion of conductor 414. Conductor 414 is in electrical contact with conductive housing 402, while insulator 416 contacts center conductor 406 and normally prevents electrical contact between conductor 414 and conductor 406." and states "Insulator 416 is made from a heat sensitive material such as a thermoplastic material...[or] polyester material" and "If the gas discharge tube overheats, insulator 416 will melt and short conductor 406 to housing 402." and states that the "conductor 414 is preferably arcuate in shape" (underline added) (Column 12, Lines 19-39).

With respect to Figure 26, Chaudhry states that Figure 26 "includes both a fail short mechanism and a backup air gap in the form of a perforated heat sensitive insulating sleeve 430 surrounding the portion of center conductor 406 which contacts conductor 414. When the voltage between conductor 406 and housing 402 exceeds a predetermined level, there is a discharge between conductor 414 and conductor 406 through the air gap formed by the holes in insulating sleeve 430.

The embodiments described by Chaudhry are designed to be both thermally activated as well as voltage activated. The shape of the conductor 414 of Chaudhry is described by Chaudhry as being arcuate (meaning bowed or bent). As shown, the conductor 414 is manufactured such that there is physical contact between the insulator 416 and the conductor

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414 and manufactured such that there is physical contact between the insulator 416 and the center conductor 406 while employing a bowed or bent conductor 414 of Chaudhry.

The Applicant's surge protective element is not designed to function within a gas discharge tube nor is it designed to be thermally activated. Instead, Applicant's surge protective element is designed to be voltage activated and is manufacturable entirely of one electrically conductive material, such as for example, bronze or brass. In one type of embodiment, the shape and dimension of the Applicant's surge protective element is manufacturable from sheet metal. No portion of the Applicant's surge protective element requires it to be bowed or bent, or made from multiple and different types of materials as with the embodiment of Chaudhry.

Being capable of being manufactured entirely from sheet metal, the Applicant's surge protective element can be easily and inexpensively manufactured using well known sheet metal stamping and cutting techniques. Further, it can be accurately manufactured within tolerances so that it can reliably operate as designed and assembled.

Further, being of a generally symmetric shape, such as being fully ring shaped and dimensioned to fit in contacting relation to a shoulder formed within the body of a CATV cable connector, it can be easily and reliably assembled into a CATV type of connector, such as a UMTR (Universal Male Terminator Connector). The ring shape of the Applicant's surge protective element provides a contact perimeter that enables a snug (friction) fit that can effectively hold the assembled surge protective element in place as assembled.

The Applicant asserts that the claimed differences between the Applicant's invention and the embodiments of Chaudhry are not supplied by any of the embodiments of Volkenau. Also, there is no teaching or suggestion within Chaudhry or Volkenau to combine Chaudhry and Volkenau. Further, if Chaudhry or Volkenau were combined, there would be no reasonable expectation of success.

Volkenau discloses lighting arrestor spark gap that features a high current carrying capacity as well as a high current limiting and arc-quenching capacity via the employment of a rotating arc spark gap. The embodiments of Volkenau are designed to determine the moment (in time) at which active quenching of the arc starts (initiates) at currents of a

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particular value (Column 6, Lines 8-10). The ring portion of Volkenau (element 9) is designed to function within a rotating arc chamber and does not operate in response to a voltage difference with a central conductor. In fact, there is no central conductor described within Volkenau.

The Applicant's claim 1 recites, in part, "a portion of said ring is in physical and electrical contact with a shoulder formed within said body portion of said housing" and recited where said "housing ...having a body portion that defines an internal cavity". The ring portion of Volkenau (element 9) is not described as making physical and electrical contact with any type of element that can be characterized as a shoulder formed within a body portion of a housing that defines an internal cavity.

In fact, the ring portion of Volkenau (element 9) is shown as being spaced apart from (not making physical contact with) surrounding and proximate Volkenau elements 3, 4, 8, 5, 6 and 12. (See FIGS. 1, 2, 3). FIGS. 4 and 9 of Volkenau show the ring portion of Volkenau (element 9) only making electrical contact with what appears to be an un-numbered conductor connected to element 17. The un-numbered conductor is not in any way described to function as a shoulder formed within a body portion of a housing that defines an internal cavity.

Nor is Volkenau designed to operate within a CATV connector. The ring shaped portion of Volkenau is not designed to surround a central conductor that functions like that of the Applicant's invention and is not dimensioned to fit in contacting relation to a shoulder formed within the body of a CATV cable connector, or any type of object.

In summary, Volkenau falls far short of supplying the missing Applicant's claimed "ring" that is "in physical and electrical contact with a shoulder formed within said body portion of said housing" as recited by Applicant's claim 1. Hypothetically, combining the ring shaped portion of Volkenau (element 9), or any other teaching of Volkenau with any of the embodiments of Chaudhry would not have any reasonable expectation of success, because Volkenau and Chaudhry each designed to employ different means to accomplish different results.

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For at least the reasons explained above, there is no motivation for one skilled in the art to combine the Chaudhry and Volkenau references to teach or suggest all of the limitations of the Applicant's claim 1. Any such hypothetical combination would not teach or suggest all of the limitations of the Applicant's claim 1.

As a matter of law, because claim 1 arguably distinguishes over the cited art, claims 1-4, 12 and 13 which depend from claim 1, also arguably distinguish over the cited art. Accordingly, the Applicant respectfully requests the allowance of claims 1-4, 12 and 13.

Newly added claim 15 recites much of the language of claim 1 and additional language that renders its scope as being arguably no greater than that of claim 1. As a matter of law, because claim 1 arguably distinguishes over the cited art, claim 15 also arguably distinguishes over the cited art.

The Examiner has rejected claims 6-7 and 14 under 35 U.S.C. §102(a) as being anticipated by Chaudhry (U.S. 5,724,220). As stated by the Examiner with regard to claim 1, Chaudhry discloses "an electrically conductive surge protective element 414,416 (Figure 24-25) and 414,430 (Figure 26-29)" that is a "semicircular ring" that is "in physical and electrical contact with a shoulder formed within said body of said housing" (Column 12, lines 39-67) and states that "Chaudhry fails to disclose a protective element, which is a ring".

The Applicant agrees with the Examiner's statement that "Chaudhry fails to disclose a protective element, which is a ring." The Applicant asserts that if Chaudhry fails to disclose a surge "protective element, which is a ring," then Chaudhry fails to disclose "positioning an electrically conductive ring-shaped surge protective element", as recited, in part, by the Applicant's claim 6 and new claim 16.

As explained in association with the Applicant's response to the rejection of claim 1, the Applicant's surge protective element, being of a generally symmetric and of a ring shape and dimensioned to fit in contacting relation to a shoulder formed within the body of a CATV cable connector, can be more easily and reliably positioned (assembled) into a CATV type of connector, such as a UMTR (Universal Male Terminator Connector), than an asymmetric and non-ring shaped ("arcuate") surge protective element, like that described by Chaudhry.

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As explained in association with claim 1, the ring shape of the Applicant's surge protective element provides a contact perimeter that can enable a snug fit that can effectively hold an assembled (positioned) surge protective element in place after being assembled (positioned) into the body portion of a connector.

The shape of the conductor 414 of Chaudhry is described by Chaudhry as being arcuate (meaning bowed or bent) and is clearly asymmetric as shown in FIGS. 25, 27 and 29 of Chaudhry. The physical attributes of the surge protective element of Chaudhry make it less easily and inexpensively manufactured and less accurately manufactured within tolerances so that it can reliably operate as designed and assembled, as explained in association with the Applicant's response to the rejection of claim 1.

As a result, the Applicant's claim 6 is patentably distinct from the embodiments of Chaudhry. As a matter of law, because claim 6 arguably distinguishes over the cited art, claims 7 and 14 which depend from claim 1, also arguably distinguish over the cited art. Accordingly, the Applicant respectfully requests the allowance of claims 6-7 and 14.

Newly added claim 16 recites much of the language of claim 6 and additional language that renders its scope as being arguably no greater than that of claim 6. As a matter of law, because claim 6 arguably distinguishes over the cited art, claim 16 also arguably distinguishes over the cited art.

Conclusion

Based upon the above remarks and amendments, the Applicant believes the pending claims 1-4, 6-7 and 12-14 and the newly added claims 15-16 of the above-captioned application are in condition for allowance and patentable over the prior art of record. Applicant respectfully requests a prompt Notice of Allowance.

Applicant believes that a one month extension of time is necessary to make this Response timely. Should Applicant be in error, Applicant respectfully requests that the Office grant a correct time extension pursuant to 37 C.F.R. §1.136(a) as necessary to make this Response timely, and hereby authorizes the Office to charge any necessary fee or

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surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 50-0289.

If the Examiner wishes to expedite disposition of the above-captioned patent application, he is invited to contact Applicant's representative at the telephone number below. Please direct any questions or comments to R. Stephen Rosenholm at (315) 671-4236.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-0289.

Respectfully submitted,

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